What is claimed is:

1. An isolated polynucleotide comprising a nucleotide sequence that has at least 70% identity to a nucleotide sequence encoding the IAP polypeptide of SEQ ID NO:2, said identity being over the entire region encoding SEQ ID NO:2.
2. The isolated polynucleotide of claim 1, comprising a nucleotide sequence that by virtue of redundancy of the genetic code, encodes for the amino acid sequence of SEQ ID NO:2.
3. An isolated polynucleotide, comprising a nucleotide sequence that has at least 70% identity to SEQ ID NO:1 or SEQ ID NO:3, said identity being calculated over the entire length of SEQ ID NO:1 or SEQ ID NO:3.
4. The polynucleotide of claim 3, comprising the nucleotide sequence of SEQ ID NO:1 or SEQ ID NO: 3.
5. An expression vector comprising a polynucleotide, wherein said expression vector is capable of producing an IAP polypeptide comprising the amino acid sequence of SEQ ID NO:2 when said expression system is present in a compatible host cell.
6. A host cell comprising the expression system of claim 5.
7. A process for producing an IAP polypeptide comprising culturing a host of claim 6 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture.
8. A process for producing a cell which produces an IAP polypeptide comprising transforming, transducing or transfecting a host cell with the expression system of claim 5 such that the host cell, under appropriate culture conditions, produces an IAP polypeptide.

9. An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:2.

10. An antibody immunospecific for the IAP polypeptide of claim 9.

11. An isolated polynucleotide comprising a nucleotide sequence that has at least 70% identity to a nucleotide sequence encoding the IAP polypeptide of SEQ ID NO:5, said identity being over the entire region encoding for SEQ ID NO:5.

12. The isolated polynucleotide of claim 11, comprising a nucleotide sequence that by virtue of redundancy of the genetic code, encodes for the amino acid sequence of SEQ ID NO:5.

13. An isolated polynucleotide, comprising a nucleotide sequence that has at least 70% identity to SEQ ID NO:4, said identity being calculated over the entire length of SEQ ID NO:4.

14. The isolated polynucleotide of claim 13, comprising the nucleotide sequence of SEQ ID NO:4.

15. An expression vector comprising a polynucleotide, wherein said expression vector is capable of producing an IAP polypeptide comprising the amino acid sequence of SEQ ID NO:5 when said expression system is present in a compatible host cell.

16. A host cell comprising the expression system of claim 15.

17. A process for producing a IAP polypeptide having the amino acid sequence of SEQ ID NO:5 comprising culturing a host of claim 16 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture.

18. A process for producing a cell which produces an IAP polypeptide, comprising transforming, transducing or transfecting a host cell with the expression system of

claim 15 such that the host cell, under appropriate culture conditions, produces an IAP polypeptide having the amino acid sequence of SEQ ID NO:5.

19. An isolated polypeptide, comprising the amino acid sequence of SEQ ID NO:5.

20. An antibody immunospecific for the IAP polypeptide of claim 19.

21. An isolated polynucleotide, comprising a nucleotide sequence that has at least 70% identity to a nucleotide sequence encoding the IAP polypeptide of SEQ ID NO:7, said identity being over the entire region encoding for SEQ ID NO:7.

22. The isolated polynucleotide of claim 21, comprising a nucleotide sequence that by virtue of redundancy of the genetic code, encodes for the amino acid sequence of SEQ ID NO:7.

23. An isolated polynucleotide comprising a nucleotide sequence which has at least 70% identity to SEQ ID NO:6, said identity being calculated over the entire length of SEQ ID NO:6.

24. The isolated polynucleotide of claim 23, comprising the nucleotide sequence of SEQ ID NO:6.

25. An expression vector comprising a polynucleotide, wherein said expression vector is capable of producing an IAP polypeptide, comprising the amino acid sequence of SEQ ID NO:7 when said expression system is present in a compatible host cell.

26. A host cell comprising the expression system of claim 25.

27. A process for producing an IAP polypeptide having the amino acid sequence of SEQ ID NO:7 comprising culturing a host of claim 26 under conditions sufficient for the production of said polypeptide and recovering the polypeptide from the culture.

28. A process for producing a cell which produces an IAP polypeptide comprising transforming, transducing or transfecting a host cell with the expression system of claim 25 such that the host cell, under appropriate culture conditions, produces an IAP polypeptide having the amino acid sequence of SEQ ID NO:7.

29. An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:7.

30. An antibody immunospecific for the IAP polypeptide of claim 29.

31. An isolated polynucleotide, comprising a nucleotide sequence that has at least 70% identity to a nucleotide sequence encoding the IAP polypeptide of SEQ ID NO:9, said identity being over the entire region encoding for SEQ ID NO:9.

32. The isolated polynucleotide of claim 31, comprising a nucleotide sequence which, by virtue of redundancy of the genetic code, encodes for the amino acid sequence of SEQ ID NO:9.

33. An isolated polynucleotide, comprising a nucleotide sequence that has at least 70% identity to SEQ ID NO:8, said identity being calculated over the entire length of SEQ ID NO:8.

34. The isolated polynucleotide of claim 33, comprising the nucleotide sequence of SEQ ID NO:8.

35. An expression vector comprising a polynucleotide, wherein said expression vector is capable of producing an IAP polypeptide comprising the amino acid sequence of SEQ ID NO:9 when said expression system is present in a compatible host cell.

36. A host cell comprising the expression system of claim 35.

37. A process for producing an IAP polypeptide having the amino acid sequence of SEQ ID NO:9 comprising culturing a host of claim 36 under conditions sufficient

for the production of said polypeptide and recovering the polypeptide from the culture.

38. A process for producing a cell which produces an IAP polypeptide, comprising transforming, transducing or transfecting, a host cell with the expression system of claim 35 such that the host cell, under appropriate culture conditions, produces an IAP polypeptide having the amino acid sequence of SEQ ID NO:9.

39. An isolated polypeptide, comprising the amino acid sequence of SEQ ID NO:9.

40. An antibody immunospecific for the IAP polypeptide of claim 39.

41. An isolated polynucleotide encoding a soluble protein that binds IAP.

42. A method of detecting organ failure caused by ischemia, reperfusion or hypoxia in a mammal, the method comprising the steps of:

(a) measuring a level of a IAP mRNA in a test sample from said mammal; and

(b) determining if the level of the mRNA measured in said test sample correlates with an adverse organ condition in the mammal.

43. A method according to claim 42, wherein the adverse organ condition is a condition selected from the group consisting of renal, liver and heart failure.

44. A method according to claim 42, wherein the mammal is selected from the group consisting of human, mouse, rat and bovine.

45. A method according to claim 42, wherein said test sample is a cell removed from the body.

46. The method according to claim 45, wherein said cell is selected from the group consisting of kidney, liver and heart cells.

47. A method according to claim 42, wherein said test sample is a body fluid.

48. A method according to claim 47, wherein said body fluid is selected from the group consisting of blood, interstitial fluid, urine and lymph.

49. A method according to claim 47 wherein said body fluid is blood.

50. A method according to claim 42, wherein said level of said IAP mRNA is a concentration of said IAP mRNA.

51. A method according to claim 42, wherein said measuring step comprises measuring said IAP mRNA level by a method selected from the group consisting of chromatography, immunoassay, enzymatic assay, spectroscopy, and Southern and Northern blot assays.

52. A method according to claim 51, wherein said measuring is a chromatographic method selected from the group consisting of high performance liquid chromatography and gas chromatography.

53. A method according to claim 51, wherein said measuring is a spectroscopic method selected from the group consisting of ultraviolet spectroscopy, infrared spectroscopy and nuclear magnetic resonance spectroscopy.

54. A method according to claim 51, wherein said measuring is an immunoassay that detects an IAP protein coded for by the IAP mRNA of claim 1 in said test sample using anti-IAP antibodies.

55. A method according to claim 42, wherein said determination step is a comparison between said measured level of said IAP mRNA and a predetermined value for the level of said IAP mRNA.

56. A method according to claim 55, wherein said predetermined value for the level of the IAP mRNA is indicative of normal function.

57. A method according to claim 56, wherein said predetermined value for the level of said IAP mRNA is obtained from a mammal of the same species and approximately the same age as the mammal from which the test sample was obtained.

58. A method according to claim 57, wherein said measured level of said IAP mRNA differs from said predetermined value for the level of said IAP mRNA.

59. A method of preventing organ failure in a mammal by detecting the onset of ischemia, reperfusion or hypoxia according to claim 42 and taking a preventive measure.

60. A method of determining prognosis of a patient following a medical procedure by detecting ischemia, reperfusion or hypoxia according to claim 42.

61. A method according to claim 60, wherein said medical procedure is selected from the group consisting of organ transplantation, coronary bypass surgery, angioplasty, and administering an anticoagulant.

62. A method of detecting organ failure caused by ischemia, reperfusion or hypoxia in a mammal, the method comprising the steps of:

(a) measuring a level of an IPA protein in a test sample from said mammal; and

(b) determining if the level of said IAP protein measured in said test sample correlates with an adverse organ condition.

63. A method according to claim 62, wherein said adverse organ condition is a condition selected from the group consisting of renal, liver and heart failure.

64. A method according to claim 62, wherein the mammal is selected from the group consisting of human, mouse, rat and bovine.

65. A method according to claim 62, wherein said test sample is a cell removed from the body.

66. The method according to claim 65, wherein said cell is selected from the group consisting of kidney, liver, and heart cells.

67. A method according to claim 62, wherein said test sample is a body fluid.

68. A method according to claim 67, wherein said body fluid is selected from the group consisting of blood, interstitial fluid, urine and lymph.

69. A method according to claim 67 wherein said body fluid is blood.

70. A method according to claim 62, wherein said level of said IAP protein is a concentration of said IAP protein.

71. A method according to claim 62, wherein said measuring step comprises measuring said IAP protein level by a method selected from the group consisting of chromatography, immunoassay, enzymatic assay, spectroscopy, and Western blot assays.

72. A method according to claim 71, wherein said measuring is a chromatographic method selected from the group consisting of high performance liquid chromatography and gas chromatography.

73. A method according to claim 71, wherein said measuring is a spectroscopic method selected from the group consisting of ultraviolet spectroscopy, infrared spectroscopy and nuclear magnetic resonance spectroscopy.

74. A method according to claim 71, wherein said measuring is an immunoassay that detects an IAP protein using anti-IAP antibodies.

75. A method according to claim 62, wherein said determination step is a comparison between said measured level of said IAP protein and a predetermined value for the level of said IAP protein.

76. A method according to claim 75, wherein said predetermined value for the level of the IAP protein is indicative of normal cardiac function.

77. A method according to claim 76, wherein said predetermined value for the level of said IAP protein is obtained from a mammal of the same species and approximately the same age as the mammal from which the test sample was obtained.

78. A method according to claim 77, wherein said measured level of said IAP protein differs from said predetermined value for the level of said IAP protein.

79. A method of preventing an organ failure in a mammal by detecting ischemia, reperfusion or hypoxia according to claim 62 and taking a preventive measure.

80. A method of determining prognosis of a patient following a medical procedure by detecting ischemia, reperfusion or hypoxia according to claim 62.

81. A method according to claim 80, wherein said medical procedure is selected from the group consisting of organ transplantation, coronary bypass surgery, angioplasty, and administering an anticoagulant.

82. A method of detecting a condition that is related to an increased inflammatory response in a mammal, the method comprising the steps of:

(a) measuring a level of an IPA mRNA or protein in a test sample from said mammal; and

(b) determining if the level of said IAP mRNA protein measured in said test sample correlates with an adverse inflammatory condition.

83. A method according to claim 62, wherein said adverse organ condition is septic shock.